



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/950,094	09/10/2001	Bradford P. Packer	4777US (20609-US)	2251
24247	7590	03/10/2004	EXAMINER	
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110			FONTAINE, MONICA A	
			ART UNIT	PAPER NUMBER

1732

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/950,094	Applicant(s) PACKER ET AL.	
	Examiner Monica A Fontaine	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 34-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>091001</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1732

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-33, drawn to a method of forming an ablative coating on at least a portion of a structure, classified in class 264, subclass 275.
- II. Claims 34-42, drawn to an aeroskirt component, classified in class 428, subclass 411.1+.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, such as molding a coating layer onto a structure by hand.

During a telephone conversation with Bradley Jensen on 12 February 2004 a provisional election was made without oral traverse to prosecute the invention of group I, claims 1-33. Affirmation of this election must be made by applicant in replying to this Office action. Claims 34-42 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Art Unit: 1732

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 11, 17-19, 24, 28, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Headrick et al. (U.S. Patent 4,772,495). Regarding Claim 1, Headrick et al., hereafter “Headrick,” show that it is known to carry out a method of forming an ablative coating on at least a portion of a structure (Abstract) comprising forming a mold having a cavity configured to cooperatively receive the at least a portion of the structure (Column 3, lines 34-37; Column 4, lines 45-60); placing the at least a portion of the structure in the cavity of the mold (Column 4, lines 53-60); introducing an ablative mixture into the mold cavity such that it is in contact with the at least a portion of the structure (Column 4, lines 53-60); and curing the ablative mixture to bond the ablative mixture to a surface of the at least a portion of the structure (Column 4, lines 53-60).

Regarding Claim 3, Headrick shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein said curing the ablative mixture includes curing the ablative mixture at atmospheric pressure (Column 6, lines 6-9).

Regarding Claim 4, Headrick shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein said curing the ablative mixture includes a first curing stage of curing the ablative mixture at a temperature in the range of approximately 70°F to 95°F (Column 6, lines 6-9).

Art Unit: 1732

Regarding Claim 11, Headrick shows the process as claimed as discussed in the rejection of Claim 1 above, including a method further comprising removing the mold subsequent to the curing and buffing at least a portion of a surface of the cured ablative mixture (Column 3, lines 67-68; Column 4, lines 1-2).

Regarding Claim 17, Headrick shows the process as claimed as discussed in the rejection of Claim 1 above, including a method further comprising configuring the mold cavity to define at least one stay-out zone such that the ablative mixture introduced into the mold cavity forms around the at least one stay-out zone but does not impinge into the at least one stay-out zone (Column 3, lines 59-66; Column 4, lines 53-60).

Regarding Claim 18, Headrick shows the process as claimed as discussed in the rejection of Claims 1 and 17 above, including a method wherein said defining at least one stay-out zone includes placing a boss about an area of the structure prior to introducing the ablative mixture into the mold cavity and removing the boss subsequent to the curing of the ablative mixture (Column 3, lines 59-66; Column 4, lines 53-60).

Regarding Claim 19, Headrick shows that it is known to carry out a method of forming an ablative coating on at least a portion of a structure (Abstract), the method comprising forming a mold with a cavity configured to cooperatively receive the at least a portion of the structure (Column 3, lines 34-37; Column 4, lines 45-60); placing the at least a portion of the structure in the mold cavity (Column 4, lines 53-60); mixing a salt-filled epoxy resin base, a fiber-filled polyamide hardener, and a silicone resin modifier to form an ablative insulation mixture (Column 2, lines 16-26, 40-58); introducing the ablative insulation mixture into the mold cavity

Art Unit: 1732

so that the ablative insulation mixture contacts a surface of the at least a portion of the structure (Column 4, lines 53-60); and curing the ablative insulation mixture (Column 4, lines 53-60).

Regarding Claim 24, Headrick shows the process as claimed as discussed in the rejection of Claim 19 above, including a method wherein the curing of the ablative insulation mixture includes curing at an atmospheric pressure (Column 6, lines 6-9).

Regarding Claim 28, Headrick shows the process as claimed as discussed in the rejection of Claim 19 above, including a method wherein the mixing to form an ablative insulation mixture including mixing the salt-filled epoxy resin base, the fiber-filled polyamide hardener, and the silicone resin modifier with a mixing machine (Column 3, lines 6-20).

Regarding Claim 29, Headrick shows the process as claimed as discussed in the rejection of Claims 19 and 28 above, including a method wherein the mixing to form an ablative insulation mixture further includes mixing the salt-filled epoxy resin base, the fiber-filled polyamide hardener, and the silicone resin modifier under pressure (Column 3, lines 6-20; It is noted that any pressure, for example, atmospheric pressure, meets this limitation.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Headrick, in view of Walker et al. (U.S. Patent 4,204,899). Headrick shows the process as claimed as discussed in

Art Unit: 1732

the rejection of Claim 1 above, but he does not show heating the ablative mixture specifically to alter its viscosity. Walker et al., hereafter "Walker," shows that it is known to carry out a method of forming an ablative coating on a substrate, the method comprising heating the ablative mixture to reduce a viscosity thereof prior to introducing the ablative mixture into the mold cavity (Column 2, lines 65-68). Walker and Headrick are combinable because they are concerned with a similar technical field, namely, that of molding processes which result in an ablative coating on a substrate. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to heat the ablative mixture to reduce its viscosity, as in Walker, during Headrick's molding process in order to make the mixture more flowable and easy to mold.

Claims 5-9, 14-16, 25-27, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Headrick, in view of Dittman et al. (U.S. Patent 3,380,941).

Regarding Claim 5, Headrick shows the process as claimed as discussed in the rejection of Claims 1 and 4 above, but he does not show a curing time of approximately 8 hours. Dittman et al., hereafter "Dittman," show that it is known to carry out a method of forming an ablative coating on a substrate, wherein the first curing stage is conducted for approximately 8 hours (Column 4, lines 6-9). Dittman and Headrick are combinable because they are concerned with a similar technical field, namely, that of molding processes which result in an ablative coating on a substrate. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Dittman's curing time during Headrick's molding process in order to cure the material to a degree which renders the coating useful in action.

Regarding Claim 6, Headrick shows the process as claimed as discussed in the rejection of Claims 1, 4, and 5 above, but he does not show curing the material at a higher temperature in a subsequent curing step. Dittman shows that it is known to carry out a coating method wherein said curing the ablative mixture further includes a second stage of curing the ablative mixture at an elevated temperature subsequent to the first curing state (Column 4, lines 6-9). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Dittman's subsequent curing step in Headrick's molding process to insure that the coating is completely cured before placing the coating in a demanding environment.

Regarding Claim 7, Headrick shows the process as claimed as discussed in the rejection of Claims 1 and 4-6 above, but he does not show a specific temperature for a subsequent curing step. Dittman shows that it is known to carry out a coating method wherein the second stage further includes curing the ablative mixture at approximately 110°F for approximately 8 hours. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Dittman's specific temperature in a subsequent curing step in Headrick's molding process to insure that the coating is completely cured before placing the coating in a demanding environment.

Regarding Claim 8, Headrick shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show providing a relief in the mold. Dittman shows that it is known to carry out a coating method further comprising providing a relief in the mold for receipt of ablative mixture in excess of that required by the mold cavity having the at least a portion of the structure therein (Column 3, lines 57-59; Column 4, lines 1-9). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to include

Art Unit: 1732

Dittman's relief in Headrick's molding process in order to avoid over-pressurization of the mold cavity as the ablative mixture is cured on a substrate.

Regarding Claim 9, Headrick shows the process as claimed as discussed in the rejection of Claims 1 and 8 above, but he does not show a specific location of a relief in the mold cavity. Dittman shows that it is known to carry out a coating method further comprising locating the relief above the cavity in the mold to allow air bubbles to flow into the excess ablative mixture contained in the relief (Column 4, lines 2-3). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to allow air bubbles to flow into Dittman's relief during Headrick's molding process to avoid unsightly air bubble pockets in the final molded coating.

Regarding Claim 14, Headrick shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show forming a coating with varying thickness. Dittman shows that it is known to carry out a coating method further comprising configuring the mold cavity such that the ablative mixture introduced therein will form an ablative coating of varied thickness over the surface of the at least one portion of the structure (Column 1, lines 38-40). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to form Dittman's coating of varying thickness with Headrick's molding method in order to fortify certain areas of the substrate that will be most important when used in industry.

Regarding Claim 15, Headrick shows the process as claimed as discussed in the rejection of Claims 1 and 14 above, including a method further comprising placing spacers between the surface of the structure and a surface of the mold within the mold cavity to establish a desired

Art Unit: 1732

thickness of the ablative coating (Column 3, lines 59-66; Column 4, lines 53-60), meeting applicant's claim.

Regarding Claim 16, Headrick shows the process as claimed as discussed in the rejection of Claims 1, 14, and 15 above, but he does not show forming the spacers out of a specific material. However, this structural limitation is not shown or claimed to have an unexpected effect on the method steps, and therefore is not given patentable weight (see *Stalego and Drummond v. Heymes and Peyches*, 120 USPQ 473 (CCPA 1959); *Ex parte Pfeiffer*, 135 USPQ 31.).

Regarding Claim 25, Headrick shows the process as claimed as discussed in the rejection of Claims 19 and 24 above, but he does not show a specific curing time of approximately 8 hours. Dittman shows that it is known to carry out a coating method wherein the curing of the ablative insulation mixture includes a first curing stage of curing the ablative insulation mixture at approximately 70°F to 95°F for approximately 6 to 8 hours from a time when the ablative mixture is first introduced into the mold cavity (Column 4, lines 6-9). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Dittman's curing time and temperature during Headrick's molding process in order to fully cure the material to a degree which renders the coating useful in action.

Regarding Claim 26, Headrick shows the process as claimed as discussed in the rejection of Claims 19, 24, and 25 above, but he does not show a subsequent curing step. Dittman shows that it is known to carry out a coating method wherein the curing of the ablative insulation mixture includes a second curing stage of curing the ablative insulation mixture at an elevated temperature of approximately 110°F for approximately 8 hours subsequent to the first curing

Art Unit: 1732

stage (Column 4, lines 6-9). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Dittman's subsequent curing step in Headrick's molding process to insure that the coating is completely cured before placing the coating in a demanding environment.

Regarding Claim 27, Headrick shows the process as claimed as discussed in the rejection of Claims 19 and 24-26 above, including a method further comprising removing the mold from the structure and the cured ablative insulation mixture (Column 3, lines 60-66; Column 4, lines 53-60), meeting applicant's claim.

Regarding Claim 30, Headrick shows the process as claimed as discussed in the rejection of Claim 19 above, but he does not show mixing the ablative mixture by hand. Dittman shows that it is known to carry out a coating method wherein the mixing to form an ablative insulation mixture includes mixing the salt-filled epoxy resin base, the fiber-filled polyamide hardener, and the silicone resin modifier by hand (Column 2, lines 35-60). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Dittman's hand-mixing method during Headrick's molding process in order to avoid the need for expensive mixing equipment.

Regarding Claim 31, Headrick shows the process as claimed as discussed in the rejection of Claims 19 and 30 above, but he does not show a time wherein the mixed ablative coating composition is allowed to sit. Dittman shows that it is known to carry out a coating method wherein the mixing to form an ablative insulation mixture includes allowing the ablative insulation mixture to sit for a predetermined time period subsequent to the mixing by hand and prior to the introducing the ablative insulation mixture into the mold cavity (Column 2, lines 35-

Art Unit: 1732

61). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to allow the ablative mixture to sit for Dittman's time period in Headrick's molding process in order to allow for the proper mixing and formation of the homogenous insulation mixture.

Regarding Claim 32, Headrick shows the process as claimed as discussed in the rejection of Claims 19, 30, and 31 above, but he does not show configuring his mold with a relief.

Dittman shows that it is known to carry out a coating method further comprising configuring the mold with a relief adjacent the mold cavity and flowing an excess of the ablative insulation mixture into the relief (Column 4, lines 1-9). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to include Dittman's relief in Headrick's molding process in order to avoid over-pressurization of the mold cavity as the ablative mixture is cured on a substrate.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Headrick and Dittman as applied to claims 1 and 8 above, further in view of Walker. Headrick shows the process as claimed as discussed in the rejection of Claims 1 and 8 above, but he does not show a trimming step. Walker shows that it is known to carry out a coating method further comprising removing the mold subsequent to the curing and trimming the cured excess ablative mixture (Column 3, lines 20-23). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow a trimming process, as in Walker, during Headrick's and Dittman's molding methods in order to obtain a clean and properly-sized coated substrate.

Art Unit: 1732

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Headrick, in view of McAllister et al. (U.S. Patent 4,595,714).

Regarding Claim 12, Headrick shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show a patching process after the ablative mixture has cured. McAllister et al., hereafter "McAllister," show that it is known to carry out a coating method further comprising removing the mold subsequent to the curing and patching at least one vug in a surface of the cured ablative mixture by placing an additional amount of ablative mixture over the at least one vug and curing the additional amount of ablative mixture (Column 8, lines 36-40; It is noted that the material property of "repairability" as cited in McAllister is known by those in the art as being tested by (in general) applying additional material to a coated surface, curing the additional amount, and rating how well it blends and/or bonds with the surface coating; see, for example SAE Standard AS5127/1, revision A, paragraph 8.2. Therefore, McAllister's assertion that his ablative coating has good repairability indicates that such a process, including applying additional material to a surface with possible imperfection which applicant claims, is known to be performed on an coated substrate.). For clarity of the record, it is noted that the examiner is hereby interpreting this claim to include a process wherein the mold is removed after curing, and THEN a vug on the surface is patched. McAllister and Headrick are combinable because they are concerned with a similar technical field, namely, that of processes which yield substrates having ablative coatings. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use McAllister's repairability process during Headrick's molding process in order to insure that the surface is smooth and without blemish.

Art Unit: 1732

Regarding Claim 13, Headrick shows the process as claimed as discussed in the rejection of Claims 1 and 12 above, but he does not show a shaping and patching process. McAllister shows that it is known to carry out a coating method further comprising shaping the additional amount of ablative mixture prior to curing thereof (Column 8, lines 36-40; It is noted that during the test which determines McAllister's repairability rating, the additional amount of ablative material will be shaped to mimic the surface geometry in order to form a complete and thorough coating.). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to shape the additional material used in McAllister's repairability process during Headrick's molding process in order to insure that the surface is smooth and without blemish.

Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Headrick, in view of Dagostino et al. (U.S. Patent 5,064,583).

Regarding Claim 20, Headrick shows the process as claimed as discussed in the rejection of Claim 19 above, but he does not show placing a release coating on the surface of the mold cavity. Dagostino et al., hereafter "Dagostino," show that it is known to carry out a method comprising placing a first coat of a release agent on a surface of the mold cavity and subsequently baking the mold prior to placing the structure in the mold cavity (Column 4, lines 58-65; Column 7, lines 25-31; Column 8, lines 7-40). Dagostino and Headrick are combinable because they are concerned with a similar technical field, namely, that of molding compositions that contain epoxies and need to be fire-resistant. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Dagostino's mold release

Art Unit: 1732

agent in Headrick's molding method in order to prevent blemishes on the molded article's surface.

Regarding Claim 21, Headrick shows the process as claimed as discussed in the rejection of Claims 19 and 20 above, but he does not show a specific baking temperature for the mold release agent. Dagostino shows that it is known to carry out a method wherein the baking the mold includes baking the mold at a temperature of approximately 200°F for approximately 6 hours (Column 7, lines 25-31). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Dagostino's baking temperature for his mold release agent in Headrick's molding process in order to insure that the mold release agent is properly cured and will not transfer to the molded article.

Regarding Claim 22, Headrick shows the process as claimed as discussed in the rejection of Claims 19 and 20 above, but he does not show using two coats of mold release agent. Dagostino shows that it is known to carry out a method comprising placing a second coat of the release agent on the surface of the mold cavity prior to placing the structure in the mold cavity (Column 8, lines 7-40). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Dagostino's two coats of mold release agent in Headrick's molding operation in order to prevent blemishes on the molded article's surface.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Headrick, in view of Barney et al. (U.S. Patent 6,627,697). Headrick shows the process as claimed as discussed in the rejection of Claim 19 above, but he does not show introducing the ablative mixture at two locations. Barney et al., hereafter "Barney," show that it is known to carry out a coating method

Art Unit: 1732

comprising introducing the ablative insulation mixture into the mold cavity through at least two locations in the mold (Column 5, lines 21-39). Barney and Headrick are combinable because they are concerned with a similar technical field, namely, that of methods which yield substrates coated with ablative mixtures. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Barney's multiple locations to introduce the ablative mixture in Headrick's molding process in order to increase the cycle time and improve process efficiency.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Headrick and Dittman as applied to claims 19 and 30-32 above, further in view of Walker. Headrick shows the process as claimed as discussed in the rejection of Claims 19 and 30-32 above, but he does not show a trimming step. Walker shows that it is known to carry out a coating method further comprising removing the mold subsequent to the curing and trimming the cured excess ablative mixture (Column 3, lines 20-23). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to follow a trimming process, as in Walker, during Headrick's and Dittman's molding methods in order to obtain a clean and properly-sized coated substrate.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

Art Unit: 1732

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maf
March 3, 2003



MICHAEL COLAIANNI
PRIMARY EXAMINER